158

MODULE

160

148

FRAME

BUFFER

150

DISPLAY

15:06 FAX 312 609 5005 JUN 0 2 2005

METHOD AND APPARATUS FOR GRAPHICS PROCESSING IN A HANDHELD DEVICE Inventor: Munshi et al., Docket No. 00100.03.0007

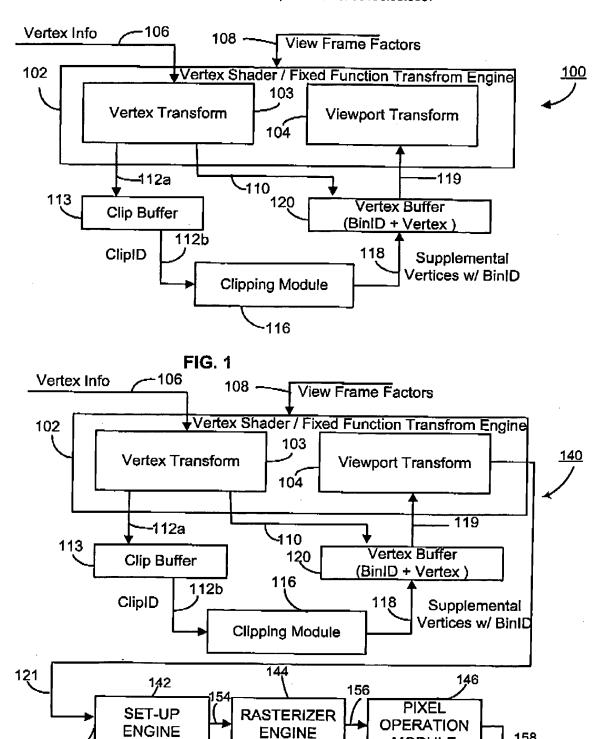


FIG. 2

152

JUN 0 2 2005 6

METHOD AND APPARATUS FOR GRAPHICS PROCESSING IN A HANDHELD DEVICE Inventor: Munshi et al., Docket No. 00100.03.0007

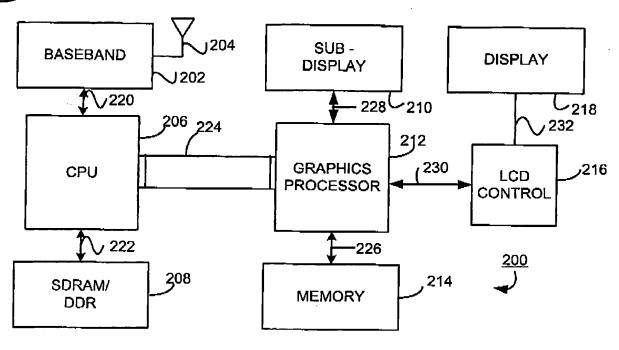


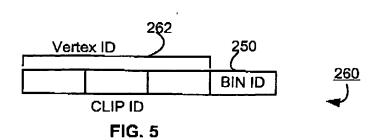
FIG. 3

256 FRONT (x,y) position 254 PLANE

BAÇK PLANE

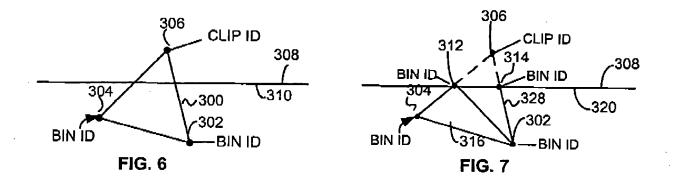
FIG. 4

BIN ID





METHOD AND APPARATUS FOR GRAPHICS PROCESSING IN A HANDHELD DEVICE Inventor: Munshi et al., Docket No. 00100.03.0007



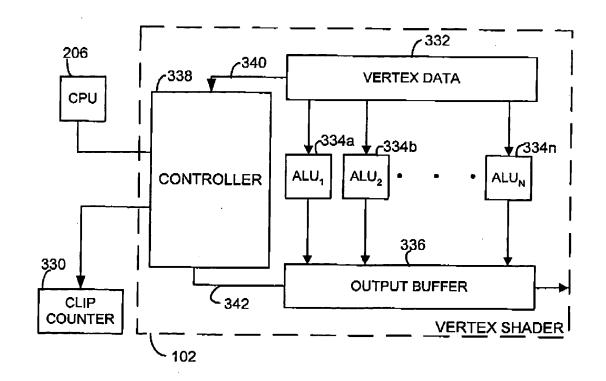


FIG. 8



METHOD AND APPARATUS FOR GRAPHICS PROCESSING IN A HANDHELD DEVICE Inventor: Munshi et al., Docket No. 00100.03.0007

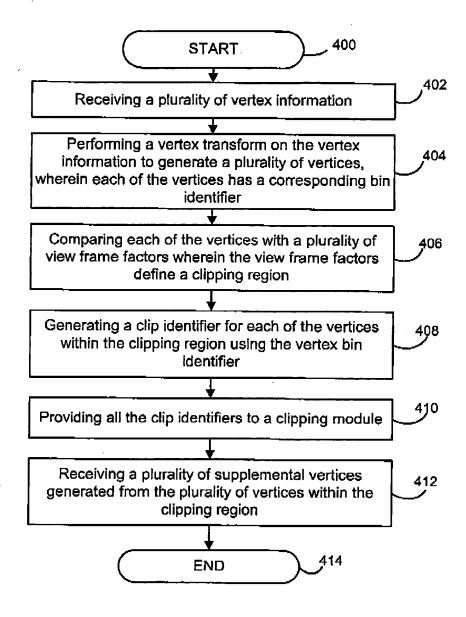


FIG. 9

422

426

428

430

432

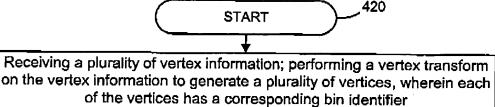
434

436

438



METHOD AND APPARATUS FOR GRAPHICS PROCESSING IN A HANDHELD DEVICE Inventor: Munshi et al., Docket No. 00100,03.0007



Comparing each of the vertices with a plurality of view frame factors wherein the view frame factors define a clipping region

Generating a clip identifier for each of the vertices within the clipping region using the vertex bin identifier

Incrementing a clip counter value each time a vertex is deemed within the clipping region

Providing the clip counter value to a central process unit such that the central processing unit knows the number of clip identifiers to be provided to the clipping module

Providing all the clip identifiers to the clipping module; and receiving a plurality of supplemental vertices generated from the plurality of vertices within the clipping region

Performing a viewport transform on the plurality of vertices and the plurality of supplemental vertices; providing an output signal from the viewport transform to a setup engine

Generating a setup engine output; and providign the setup engine output to a rasterization engine

Generating a rasterization engine output signal; providing the rasterization engine output signal to a pixel operation module; transforming the rasterization engine output signal to generate a viewable output display signal; and providing the viewable output display signal to a frame buffer

Providing the viewable display signal from the frame buffer to a display device 4

END

METHOD AND APPARATUS FOR GRAPHICS PROCESSING IN A HANDHELD DEVICE Inventor: Munshi et al., Docket No. 00100.03.0007

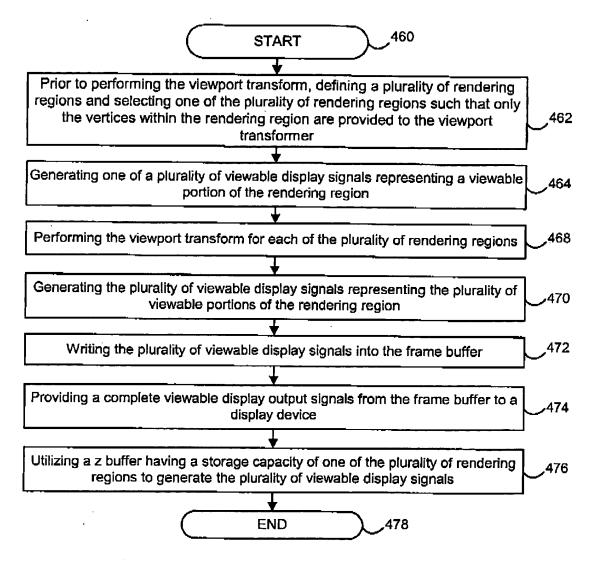


FIG. 11

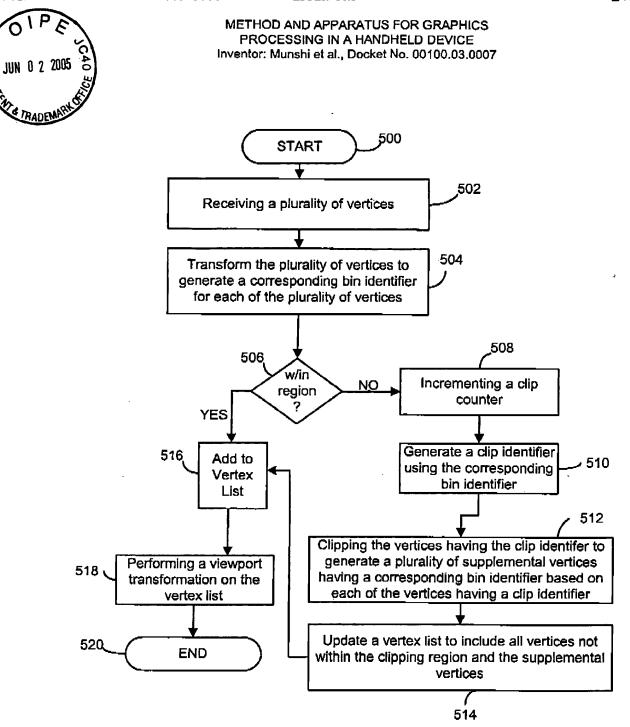


FIG. 12